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Doctor of Philosophy Program in Pharmacology (International Program)

หลักสูตร ปรัชญาดุษฎีบัณฑิต

สาขาวิชา เกษัชวิทยา (นานาชาติ) (ภาคปกติ)

Faculty of Medicine, Siriraj Hospital

Department of Pharmacology

คณะแพทยศาสตร์ศิริราชพยาบาล

ภาควิชา เกษัชวิทยา

There are 2 major concentrations

1. Medical Pharmacology
2. Systems Pharmacology

Expected number of students to be accepted year round : 3 Students

Admission Requirements

A candidate must:

1. Students must hold a Bachelor degree in in the Science (botany, biology, biochemistry ,dentistry, medicine, pharmaceutical science ฯ) or medical of science or veterinary medicine or Engineering receive a cumulative GPA of at least 3.50 or
2. Student must hold a Master degree in in the science (botany, biology, biochemistry ,dentistry, medicine, pharmaceutical science ฯ) or medical of science or veterinary medicine or Engineering receive a cumulative GPA of at least 3.50
3. Submit a certificate of English proficiency with minimum admission score:
 - IELTS - at least 3 or
 - TOEFL INTERNET BASED - at least 32 or
 - TOEFL ITP (test arranged by Faculty of Graduate Study, Mahidol University) - at least 400

Important Notes:

- English proficiency score must be taken within 2 years up to the admission date.
 - Application without submitting a valid English certificate will NOT be considered.
 - MU English Competence Standards: www.grad.mahidol.ac.th
 - MU English proficiency tests, please contact the Language Center, Faculty of Graduate Studies. Tel. 0-2441-4125 ext. 221-222
4. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

Written Examination (Applicants must attend the examination date accurately to your admission round)

Subjects for examination	Time (Morning session)
1. Biochemistry 2. Physiology 3. Pharmacology	9.00 - 12.00 a.m.
Examination Place Mahidol University , Salaya , Nakhonpathom more details : www.grad.mahidol.ac.th	

Curriculum Structure

	Credit
Plan A1	
For students with Master's degree	
Thesis	48
For students with Bachelor's degree	
Thesis	72
Plan A2	
For students with Master's degree	
Required Courses	6
Elective Courses no less than	6
Thesis	36
For students with Bachelor's degree	
Core Courses	3
Required Courses	14
Elective Courses no less than	7
Thesis	48

	credit
Core Courses	
SIID 501 Molecular and Cellular Basis of Biomedicine *	3(2-2-5)
Required Course	
For students with Master's degree	
SIPM 603 New Drug Development I	3(3-0-6)
SIPM 604 New Drug Development II	3(3-0-6)
For students with Bachelor's degree (Medical Pharmacology)	
SIPM 502 Seminar in Pharmacology	2(2-0-4)
SIPM 506 Medical Pharmacology I	3(3-0-6)
SIPM 507 Medical Pharmacology II	3(3-0-6)
SIPM 603 New Drug Development I	3(3-0-6)
SIPM 604 New Drug Development II	3(3-0-6)
(Systems Pharmacology)	
SIPM 502 Seminar in Pharmacology	2(2-0-4)
SIPM 508 Principles in Systems Pharmacology	3(3-0-6)
SIPM 509 Quantitative techniques in Systems Pharmacology	3(3-0-6)
SIPM 603 New Drug Development I	3(3-0-6)
SIPM 604 New Drug Development II	3(3-0-6)
Elective Course	
-For students with Bachelor's degree (not less than 7 credits)	
-For students with Master's degree (not less than 6 credits)	
SIPM 510 Augmented course in cancer research advanced genomic methods (Anatomy)	1(1-0-2)
SIBC 604 Statistics in Medical Genetics	1(1-0-2)
SIMI 611 Molecular Techniques in Medical Microbiology	3(2-2-5)
SIIM 618 Molecular Biology Techniques	3(2-2-0)
ITCS 503 Design and Analysis of Algorithms	3(3-0-6)
ITCS 628 Data Mining and Knowledge Discovery	3(3-0-6)
ITCS 654 Parallel Computation	3(3-0-6)
EGBE 518 Engineering Mathematics for Research	3(3-0-6)
EGBE 551 Computational Methods for Biomedical Engineering	3(3-0-6)
EGBE 616 Optimization Methods	3(3-0-6)

EGBE 623 Pattern Recognition 3(3-0-6)

EGBE 631 Advanced Drug Delivery 3(3-0-6)

Thesis

Plan A1

For students with Master's degree

SIPM 898 Dissertation 48(0-144-0)

For students with Bachelor's degree

SIPM 899 Dissertation 72(0-216-0)

Plan A2

For students with Master's degree

SIPM 699 Dissertation 36(0-108-0)

For students with Bachelor's degree

SIPM 799 Dissertation 48(0-144-0)

*** These may be changed in case of curriculum revision**

Areas of study that a student may select for concentration:

1. Clinical pharmacology
2. Immuno pharmacology
3. Anti-inflammatory pharmacology
4. Molecular pharmacology
5. Oncopharmacology
6. Antioxidant Pharmacology
7. Safety/efficacy/identity of herbal components
8. Animal models in pharmacology
9. Systems pharmacology

Details of Scholarships

1. The Siriraj Graduate Scholarships.
2. The Siriraj Graduate Thesis Scholarships.

Additional advantages of the programme

1. The research environment in the department provide an opportunity for graduate student to conduct corresponding basic and clinical research.
2. Student will be trained to understanding question physiology and pathologic condition of diseases.
3. The facilities of the Department of Pharmacology and the core facilities of the Faculty of Medicine provide state of the art research in students for biomedical science.
4. A recently implemented program in new drug development provides a huge resource of biomedicines with accompanying clinical training opportunity. This is a collaborating project with EU which will be the first program in Asean community.

5. The Ph.D. candidates will be trained to raise logical research questions and conduct matching approaches to their working hypothesis.

Application Process

Application is only available via online application at www.grad.mahidol.ac.th

Required Documents

Applicants must upload all documents via online admission system. All documents must be in PDF format (maximum size 2 MB). Photograph must be in JPEG format.

- Recent photographs (1x1 inch in size)
- A copy of an applicant's degree certificate or a letter of graduation certification (for an applicant with a degree completion)
- A letter certifying that an applicant is currently in the final year prior to graduation (for an applicant seeking for a degree)
- A detailed transcript of a degree (for an applicant with a degree completion)
- A grade report with course names and grades received from the first to the current semester prior to graduation
- A copy of identification card
- A copy of house registration certification
- A copy of Certificate of English proficiency : IELTS / TOEFL INTERNET BASED / TOEFL ITP
- A copy of proof of payment.

Job option after graduation

1. Scientist
2. Researcher

Further information may be obtained from the Director of Graduate Studies, Pharmacology :

1. **Assoc. Prof. Dr. Uraiwan Panich** (E-mail : uraiwan.pan@mahidol.ac.th)

Room 1214 Srisavarinthira Building, Floor 12, Department of Pharmacology,
Faculty of Medicine Siriraj Hospital.

Tel: 0 2419 5254 Fax: 0 2411 5026

Program Coordinator

- Miss. Phattaraphorn Pumseenil** (E-mail : phattaraphorn.pum@mahidol.ac.th)

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Faculty of Medicine Siriraj Hospital.

Tel: 0 2419 8736 Fax: 0 2411 5026

- Notes**
1. The programme requires students to study following prerequisite course:
 - SIID 501 Molecular and Cellular Basis of Biomedicine 3 Credits
 2. For more education information: <http://www.grad.mahidol.ac.th>

For more Information please contact The Student Admissions Section.
Tel . 0 2441 4125 ext. 208-210 , 0 2441 9129, E-mail : gradthai@mahidol.ac.th